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# QUALITY PLAN

## Department of Transportation DELPHI Program



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## Introduction

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### Purpose

The purpose of this Quality Plan is to define the program management and quality controls that will be applied to the DELPHI Program.

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### Scope & Application

This Quality Plan addresses the following topics for Management of the DELPHI Program.

- Planning Approach
- Work Management
- Resource Management
- Quality Management
- Program Administration

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### Related Documents

1. Program Charter for the DELPHI Program
2. Control and Reporting Procedures for the DELPHI Program
3. Quality Plan for the DELPHI Program
4. COTS Implementation, Technical Architecture, Training Strategy
5. Oracle AIM (Application Implementation Methodology) version 2.0, December, 1996
6. CSC Catalyst<sup>SM</sup> version 3.0

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## Planning Approach

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### Program Plan Approach

A Program Management Team will be established at the outset of the DELPHI Program. The purpose for this team is to lead the Global Design, Global Build, and implementation of the Oracle Federal Government Financials for a pilot location, and to coordinate the implementation of Oracle Federal Government Financials across the remaining DOT operating administrations (OAs). The Program Management Team is responsible for the following areas:

- Ensuring all agency initiatives align with the DOT vision for financial reporting;
- Determining the technical architecture to support the DOT vision;
- Setting standards for system interfaces, performance, data requirements, communication, and documentation;
- Managing the finance plan;
- Managing business process change and coordinating policy decisions by the OFM and FMC;
- Facilitating elevation and resolution of program issues; and
- Establishing Oracle Federal Government Financials deployment plans for the DOT.

The CSC Catalyst<sup>SM</sup> methodology will be used to plan and manage the activities of the Program Management Team on the DELPHI Program. The Catalyst<sup>SM</sup> methodology will be tailored for the DELPHI Program to contain the following major program management activities:

- Program Initiation
- Program Control
- DELPHI Development Standards
- OA Deployment Coordination

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### Work Plan Approach

A program work plan will be developed to address the Oracle Federal Financial applications software implementation for the Global Design/Build and Pilot project. Oracle's Application Implementation Methodology (AIM) will be used to develop this plan and manage the application activities related to the program. AIM will be tailored for the DELPHI Program and will address the following program phases:

- Definition
- Operations Analysis
- Solution Design
- Build
- Transition
- Production

The DELPHI Global Design will encompass the AIM phases of Definition, Operations Analysis, and Solution Design. The Catalyst<sup>SM</sup> Solution Demonstration Lab (SDL) methodology will be utilized to facilitate the development of the Global design for the DOT, as well as for any OA-specific design during the subsequent OA deployments. Tasks associated with the SDL approach will be incorporated into the AIM program work plan.

The AIM program work plan will also be supplemented with Catalyst<sup>SM</sup> activities to plan and manage the technical infrastructure tasks required for the program. This includes the following major activities:

- Build DELPHI Team Infrastructure
- Build Documentation Infrastructure
- Build Solution Demonstration Lab and Training Infrastructure
- Identify Production Infrastructure Requirements
- Build Production Infrastructure
- Design and Develop Systems Management and Operations Procedures

For the subsequent OA Deployment projects, detailed work plans will be developed near the conclusion of the Pilot project. Until that time, the OA Deployment projects will be estimated at the phase and activity level in the program plan.

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## Work Management

The Work Management process defines, monitors, and directs all work performed on the DELPHI Program.

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### Work Management Standards and Procedures

The following standards and procedures are components of the Work Management Plan for this program:

- Work Management Support Tool
- Program Calendar
- Work week Definition
- Team Member Overtime

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#### Work Management Support Tool

The following tools are used to support Work Management procedures:

- Project Bridge Modeler (PBM) and Project Workbench (PW) from Applied Business Technology (ABT), to support work planning and estimating.
- Microsoft Excel, for spreadsheet applications to support work effort estimating and financial planning.
- Microsoft Word, for status reporting and documentation.

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#### Program Calendar

A calendar will be created and maintained by the Program Management Team of all days that DELPHI Program Team members are unavailable. Unavailability includes planned and unplanned time off for:

- vacation
- holidays
- continuing education & training
- sick time
- administrative leave

The program calendar will be updated weekly to support the ongoing planning and management activities of the Program Management Team.

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#### Work week Definition

The defined work week for the DELPHI Program is 40 hours. Actual work start and end times, lunch time and days per week are flexible and will be managed by the Program Management Team.

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#### Team Member Overtime

Overtime requirements for DELPHI Program Team members are not expected or planned. Any required overtime will be approved by the Program Management Team.

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## Work Plan Control

The program work plan is prepared in Project Workbench. The plan shows program tasks, deliverables, milestones, dependencies, task effort by role, and task start and end dates based on the number of resources available for each role.

The plan will be updated weekly from program staff timesheets. Team members will report their actual hours worked by task and review the estimated hours to complete the task. If needed, the estimate will be revised with concurrence of the group lead.

Each group lead and the DELPHI Project Manager will monitor actual results against the work plan budget to identify problem areas as quickly as possible and initiate action to mitigate risks. A number of factors will be considered in the review including:

- comparison of actual start and end dates to the scheduled dates;
- review of the estimate to complete a task;
- determination that tasks being performed by the planned resource;
- verification that all tasks were within the scope of the program plan;
- determination that resource work load is evenly balanced.

The program work plan status will be reported weekly to the Program Management Team as part of Status Monitoring and Reporting.

Each week the program work plan will be baselined by saving it to a file with the week number coded in the filename so that it is possible to trace program data back to previous versions of the work plan.

If program scope is expanded resulting in additional program tasks required but not included in the plan, this will be managed through a change control process. Refer to the *Control and Reporting Procedures* document for the status reporting, status monitoring and change control procedures for the DELPHI Program.

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## Resource Management

The DELPHI Program will require many resources throughout its duration to successfully complete the program. The Program Management Team will have primary responsibility for seeing that the necessary resources are available as needed for the program team. The program work plan includes tasks specific to acquiring and managing resources to support the program.

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### Resource Management Scope

Resource management for the DELPHI Program encompasses:

- Program Team Organization
- Program Team Training
- Role and Responsibility Definition
- Exit Procedures
- Facilities
- Program Software/Tools
- Hardware
- Application Software Environments
- Software backup procedures and System Administration

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### Program Team Organization

Refer to the *Program Charter* document for descriptive information on the program team.

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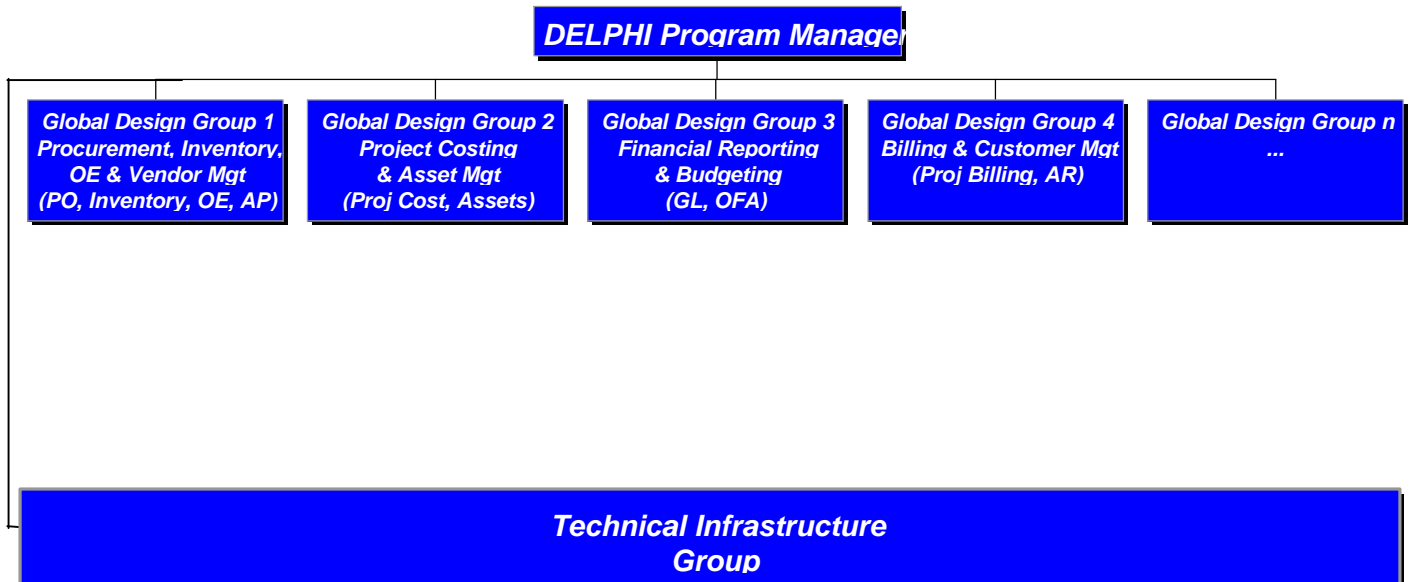
#### **Global Design/Build/Pilot**

For the Global Design/Build and Pilot (Phase I), the DELPHI Program will be organized into six groups as follows:

- Program Management Team
- Business Process Group 1 - Procurement/Inventory/Order Entry/Vendor Mgt/Payables
- Business Process Group 2 - Project Costing/Asset Mgt
- Business Process Group 3 - Financial Reporting/Budgeting
- Business Process Group 4 - Billing/Customer Mgt
- Technical Infrastructure Development and Support Group

The program organization for the Pilot is shown below.



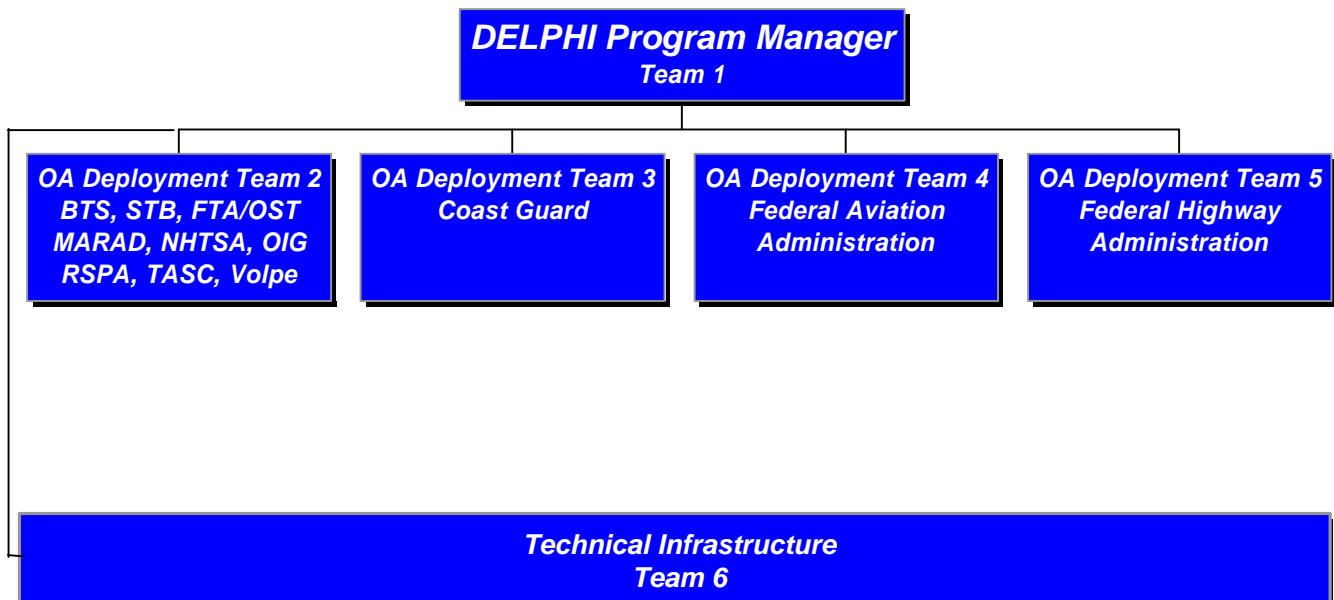


### OA Deployment

The OA Deployment (Phase II) will be organized with the following teams:

- Program Management Team
- OA Deployment Team - BTS, STB, FTA/OST, MARAD, NHTSA, OIG, RSPA, TASC, Volpe Center
- Coast Guard Deployment Team
- Federal Aviation Administration Deployment Team
- Federal Highway Administration Deployment Team
- Technical Infrastructure Development and Support Team

The OA Deployment project organization is shown below.



## Staff Roles and Responsibilities

The following key roles have been defined for the DELPHI Program. There is not a one-to-one relationship between the roles defined here and the actual resources that will be assigned. For some roles, there will be multiple resources assigned, and for other roles, there may be the same resource assigned to multiple roles. The responsibilities for each role are noted in the table below.

DELPHI Program Manager	<ul style="list-style-type: none"> <li>• day-to-day manages DOT resource commitments to the program such as people, space, and equipment</li> <li>• provides understanding of DOT objectives for the program</li> <li>• manages scope and risk</li> <li>• monitors program progress against milestones and budgets and report to the OFM and FMC</li> <li>• resolves conflicts and issues</li> <li>• provides review and approval on work products</li> <li>• escalates proposed policies from the DELPHI Program to OFM/FMC for approval</li> <li>• communicates new federal policies to DELPHI team</li> <li>• communicates federal requirements to Oracle</li> </ul>
DELPHI Project Manager	<ul style="list-style-type: none"> <li>• manages the activities and scope of the Global Design/Build and Pilot projects</li> <li>• reviews and approves program deliverables</li> <li>• manages resources on the program</li> <li>• manages program issues and risks</li> <li>• reports program progress to the Program Management Team on a weekly basis</li> <li>• participates in briefings to OFM/FMC on a periodic basis</li> <li>• escalates proposed policies from the DELPHI Program to OFM/FMC for approval</li> <li>• communicates new federal policies to DELPHI team</li> <li>• communicates federal requirements to Oracle</li> </ul>
DELPHI Communications & Training Leader	<ul style="list-style-type: none"> <li>• works with CSC organizational change specialist to develop program communications strategy</li> <li>• develops and distributes program communications to appropriate DOT OA audience</li> <li>• participates in Global Design activities</li> <li>• develops user training strategy</li> <li>• leads development of user training plans and materials</li> <li>• escalates proposed policies from the DELPHI Program to OFM/FMC for approval</li> <li>• communicates new federal policies to DELPHI team</li> <li>• communicates federal requirements to Oracle</li> </ul>

DELPHI Technical Manager	<ul style="list-style-type: none"> <li>• works closely with CSC technical architect during the program to gain knowledge of technical architecture design, development, and implementation for Oracle applications environment</li> <li>• leads the activities of the technical infrastructure team and IS operations support staff</li> <li>• ensures completion of technical infrastructure work products to support the program schedule</li> <li>• provides in-depth knowledge of current technical infrastructure and operations processes</li> <li>• provides understanding of procurement procedures for computer equipment</li> <li>• manages resources of the technical infrastructure group</li> </ul>
DOT Program Support	<ul style="list-style-type: none"> <li>• provides administrative support to the program office and program team</li> <li>• collects and enters actual hours expended by the program team members into the plan on a weekly basis</li> <li>• produces reports from project workbench</li> <li>• is responsible for DELPHI Program budget execution</li> </ul>
DOT Configuration Coordinator	<ul style="list-style-type: none"> <li>• establishes and follows document management and revision control procedures for program deliverables</li> <li>• maintains the program library of work products and revisions</li> <li>• participates in DELPHI Program budget formulation</li> </ul>
DOT Application Administrator	<ul style="list-style-type: none"> <li>• works closely with Oracle application administrator during the program to receive knowledge and expertise on administration of Oracle applications</li> <li>• provides code table maintenance, application setup, lookup table, system calendar, and system access maintenance in the production environment</li> </ul>
DOT Conversion/Interface Leader	<ul style="list-style-type: none"> <li>• provides knowledge of data structures and data requirements of current DOT financial applications</li> <li>• works closely with Oracle and DOT DBAs, and conversion/interface designers and builders to gain knowledge of Oracle data structures and develop conversion and interface programs</li> </ul>
DOT Database Administrator	<ul style="list-style-type: none"> <li>• works closely with Oracle DBA during the program to receive knowledge and expertise on Oracle database administration in an Oracle applications environment</li> <li>• monitors growth and fragmentation of the production database</li> <li>• defines and ensures adherence to production database backup and recovery procedures</li> </ul>

DOT Business Process Group Leader	<ul style="list-style-type: none"> <li>• works closely with the Oracle application specialist during the program to receive knowledge and expertise on the features and functions of the Oracle Federal Financial applications and of the Oracle AIM methods, tools, and templates</li> <li>• provides knowledge of the DOT federal financial management requirements and business processes</li> <li>• coordinates the scheduling of the appropriate OA users in workshops and reviews when required</li> <li>• reviews new federal government policies and evaluates impact upon DELPHI activities</li> <li>• guides the process groups through execution and successful completion of design activities and work products</li> <li>• reviews and approves the work products of their business process group</li> <li>• reports progress of their business process group to the DELPHI Project Manager on a weekly basis</li> </ul>
DOT Functional Specialist/Tester/Trainer	<ul style="list-style-type: none"> <li>• provides knowledge of the DOT federal financial management requirements and business processes</li> <li>• works closely with the Oracle application specialist during the program to receive knowledge and expertise on the features and functions of the Oracle Federal Financial applications and of the Oracle AIM methods, tools, and templates</li> <li>• participates in the completion of design activities and work products, including setup of the financial applications</li> <li>• participates in the development of test plans and execution of testing and problem identification</li> <li>• participates in the development of training materials and execution of end-user training</li> <li>• identifies application software gaps to be communicated to Oracle</li> <li>• identifies and documents new policies and elevates to the Program Management Team for approval or further elevation</li> <li>• works with key OA personnel following the Global Design to facilitate OA decisions and issue resolution</li> </ul>
DOT Systems Analyst	<ul style="list-style-type: none"> <li>• works closely with the Oracle applications architect during the program to receive knowledge and expertise on loading and configuring the Oracle applications</li> <li>• maintains the production Oracle applications to meet DOT functional, data, and reporting requirements on an ongoing basis</li> </ul>

DOT Technical Architect	<ul style="list-style-type: none"> <li>• works with DBAs and CSC technical architect to establish the technical infrastructures to support the program</li> <li>• works with the DBAs, CSC technical architect, and hardware vendor to design and implement the technical infrastructure to support the Oracle applications production environment</li> <li>• works with CSC performance engineer to define system performance and capacity requirements</li> <li>• works with CSC performance engineer and hardware vendor in preparing and conducting performance testing</li> <li>• works with CSC performance engineer and hardware vendor to perform system performance tuning</li> <li>• receives knowledge and understanding of technical architecture and performance engineering</li> </ul>
DOT IS Operations Support	<ul style="list-style-type: none"> <li>• provides knowledge of current system operations processes, requirements, and standards</li> <li>• works with the technical infrastructure team, hardware vendor, and Oracle to receive knowledge and understanding of the system operations requirements for the Oracle applications and hardware platform</li> <li>• develops system operations procedures</li> </ul>
DOT Network Designer	<ul style="list-style-type: none"> <li>• designs data communications architecture and physical network composition</li> <li>• provides knowledge of current DOT network</li> </ul>
DOT Network Administrator	<ul style="list-style-type: none"> <li>• installs, configures, and administers the network</li> <li>• monitors and tunes the network</li> <li>• manages access to the network</li> </ul>
DOT OA User	<ul style="list-style-type: none"> <li>• provides knowledge of DOT business processes, requirements and of unique aspects of their respective OA</li> <li>• reviews business process scenarios and SDL results</li> <li>• participates in SDL workshops as needed</li> <li>• acts as contact person back to their OA to resolve OA specific issues and facilitate OA decisions</li> <li>• participates in the development of training materials and execution of end-user role-based training at their respective OA</li> </ul>
DOT Quality Auditor	<ul style="list-style-type: none"> <li>• conducts quality audits of the program on a periodic basis and produces a report to the Program Management Team with a summary of findings and recommendations</li> </ul>

CSC Program Manager	<ul style="list-style-type: none"> <li>provides assistance to the DOT Program Management Team in developing program plans and strategies, directing program activities, reviewing work products, tracking and reporting status, and managing issues, risk, and scope</li> <li>provides understanding of structured methodologies and tools for managing COTS package implementations</li> </ul>
CSC SDL Leader	<ul style="list-style-type: none"> <li>provides overall guidance and direction to the business process groups in the preparation and execution of the SDLs</li> <li>coordinates Global Design activities across the business process groups to provide cross-functional integration</li> <li>reports SDL status to the Program Management Team on a weekly basis during Global Design</li> </ul>
CSC Technical Architect	<ul style="list-style-type: none"> <li>works with DBAs and DOT technical architect to establish the technical infrastructures to support the program</li> <li>works with the DBAs, DOT technical architect, and hardware vendor to design and implement the technical infrastructure to support the Oracle applications production environment</li> <li>provides knowledge transfer to DOT technical architect</li> </ul>
CSC Quality Assurance Reviewer	<ul style="list-style-type: none"> <li>conducts quality audits of the program on a periodic basis and produces a report to the Program Management Team with a summary of findings and recommendations</li> </ul>
CSC Account Executive	<ul style="list-style-type: none"> <li>manages contractual arrangements with the DOT</li> <li>provides assistance to the Program Management Team with strategy, issues, scope changes</li> <li>provides assistance to the Program Management Team in dealing with hardware and software vendors</li> </ul>
Oracle Project Manager	<ul style="list-style-type: none"> <li>works with the Program Management Team to direct the DELPHI implementation</li> <li>maintains and monitors program workplan</li> <li>manages the Oracle consultants</li> <li>monitors and reviews progress of program activities</li> <li>works with DELPHI Project Manager to report status to Program Management Team</li> <li>works with DOT to identify federal requirements and communicate them to the Oracle Federal Advisory Board and development staff</li> </ul>

Oracle Application Specialist	<ul style="list-style-type: none"> <li>• provides functional expertise on the Oracle Federal Financial applications to be implemented at DOT</li> <li>• provides knowledge of the Oracle AIM methodology, tools, and templates</li> <li>• guides the process groups through execution and successful completion of design activities and work products</li> <li>• provides knowledge transfer to DOT business process group leaders and DOT functional specialists</li> <li>• works closely with DOT Functional Specialists to receive knowledge of federal government financial management functions and business processes</li> <li>• facilitates design workshops and SDLs, applying best practices and financial applications expertise</li> <li>• reviews SDL work products for quality</li> </ul>
Oracle Application Architect	<ul style="list-style-type: none"> <li>• provides expertise on architecting the Oracle applications to meet DOT functional, data, and reporting requirements</li> <li>• provides knowledge transfer to DOT systems analyst</li> </ul>
Oracle Application Administrator	<ul style="list-style-type: none"> <li>• provides code table maintenance, application setup, lookup table, system calendar, and system access expertise</li> <li>• provides knowledge transfer to DOT application administrator(s)</li> </ul>
Oracle Application Technical Analyst	<ul style="list-style-type: none"> <li>• provides technical knowledge of Oracle applications such as data models and application program interfaces (APIs)</li> <li>• provides knowledge of Oracle development tools</li> </ul>
Oracle Database Administrator	<ul style="list-style-type: none"> <li>• provides in-depth knowledge of the Oracle DBMS, tools, and Oracle applications data structures</li> <li>• installs, configures, tunes the database</li> <li>• works with applications architect and technical architect to ensure an efficient database architecture</li> <li>• provides knowledge transfer to DOT DBA(s)</li> </ul>
Oracle Conversion/Interface Designer	<ul style="list-style-type: none"> <li>• develops design specifications for conversion and interface programs based on functional and data requirements</li> <li>• develops test plans for conversion and interface programs</li> </ul>
Oracle Conversion/Interface Builder	<ul style="list-style-type: none"> <li>• develops and tests conversion and interface programs utilizing specifications from the conversion/interface designer</li> <li>• resolves conversion and interface problems identified in testing</li> </ul>

Oracle Testing Coordinator	<ul style="list-style-type: none"> <li>• provides overall guidance and direction to the business process groups in the preparation and execution of system testing</li> <li>• manages the assignment and resolution of test problems identified and documented by the testers</li> <li>• reports system testing status to the Program Management Team on a weekly basis during Global Design/Build</li> </ul>
Oracle Quality Auditor	<ul style="list-style-type: none"> <li>• conducts quality audits of the program on a periodic basis and produces a report to the Program Management Team with a summary of findings and recommendations</li> </ul>
Oracle Account Executive	<ul style="list-style-type: none"> <li>• manages contractual arrangements with the DOT</li> <li>• provides assistance to the Program Management Team with strategy, issues, scope changes</li> <li>• assists Oracle project manager in managing Oracle resources</li> </ul>
Oracle Education Specialist	<ul style="list-style-type: none"> <li>• provides program team education on the Oracle Federal Financial applications</li> </ul>
Hardware Vendor Platform Designer/Performance Engineer	<ul style="list-style-type: none"> <li>• provides knowledge of specific hardware (servers)</li> <li>• designs logical and physical models for hardware configurations to meet requirements for the DOT infrastructure</li> <li>• works with DOT technical architect to define system performance and capacity requirements</li> <li>• provides assistance to the DOT technical team and hardware vendor in preparing and conducting performance testing</li> <li>• works with DOT technical team and hardware vendor to perform system performance tuning</li> </ul>

## Staff Exit Procedures

Within the provisions of the “Key Person Clauses”, program staff will, for various reasons, leave the program prior to completion. To maintain the proper level of security and to help ensure a smooth transition, all employees departing the program will be interviewed by a member of the Program Management Team. The objectives of the interview are:

- secure the return of all DELPHI Program property and program materials;
- determine the status of program tasks and deliverables within the staff’s responsibility;
- reiterate the need for adherence to any non-disclosure or non-compete agreements; and
- gain an understanding of the reason of resignation, in an effort to address staffing issues.

At certain points throughout the program, consulting staff will complete their assigned responsibilities and will transition off the DELPHI Program. The Program Management Team will be notified by the appropriate consulting manager two weeks in advance of a consultant’s scheduled transition from the DELPHI Program. The above exit procedures will be followed in these situations as well.



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## Facilities

Program facilities are required to support the DELPHI Program team members working on the activities of the program. Facility requirements include:

- work space for each full-time team member;
- phones and a voice mail account for each work area;
- e-mail for all team members;
- desktop workstations with LAN access and laser printers;
- office supplies and access to copier and fax machines;
- an analog telephone line or digital enabler for each work area;
- four large work rooms suitable for the Solution Demonstration Lab activities of the four process groups; and
- conference rooms suitable for conducting program meetings.

These facilities are the responsibility of the DELPHI Program Manager.

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## Program Software/Tools

The workstation software required to support program team activities includes:

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### Operating and Other System Software

- Windows 95/NT or higher
- Internet browser (TBD)

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### Software Tools

- MS Office 97 including Word, Excel, Access and Powerpoint
- Lotus cc:Mail e-mail software
- Visio version 4
- ABT Project Bridge Modeler
- ABT Project Workbench
- Wextech Documentation Studio

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## Hardware

The DELPHI Program will require dedicated computer systems support. The hardware will be acquired and made available as needed for the program team. Hardware for the program includes:

- DEC Alpha-class servers (quantity and model TBD)
- Pentium-class file servers (quantity and model TBD)
- Pentium-class desk top personal computer (quantity TBD)
- Laserjet quality printer (quantity TBD)

- Electronic White Board (quantity TBD)

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## **Application Software Environments**

Over the course of the DELPHI Program a number of application software environments will be required. The precise number and purpose for each environment is not known at this time. The list below represents an initial estimate of environments for the DELPHI Program:

- OCD Demo
- Solution Demonstration Lab
- Training
- Development
- Performance Testing
- DBA Tuning
- Production

The Technical Infrastructure Group will be responsible for managing these environments.

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## Quality Management

Quality management defines quality for program processes and deliverables and how the level of quality will be measured. This effort is intended to increase the likelihood that the solutions delivered to the operating administrations are consistent and accepted for use by the agencies. Further, quality measures of program processes are designed to help the Program Management Team in guiding program efforts.

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### Quality Management Standards and Procedures

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#### Quality Management Standards and Procedures

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- The program plan serves as the basis for the timeline and budget. Actual hours expended and progress against the timeline will be recorded and reviewed on a weekly basis. Estimated time to complete and variances will be tracked and analyzed on a weekly basis.
- Program risks and mitigation plans will be reviewed and updated on a monthly basis.
- Program issues will be documented and elevated to the appropriate personnel immediately upon identification. Critical issues will require resolution within 3 business days.
- Changes in program scope will be documented and elevated to the appropriate approving personnel immediately upon identification.
- Deliverables from the program will be reviewed at various levels. Initial drafts produced by team members will be reviewed and critiqued by group leaders. Subsequent drafts will be reviewed and critiqued by The DELPHI Project Manager. Final drafts will be reviewed and critiqued by the Program Management Team.
- Although it is the responsibility of CSC on an on-going basis, quality assurance reviews will be conducted independently by DOT, Oracle, and CSC on a quarterly basis. These reviews will include evaluation of program progress against plan timeline and budget, review of work products, and review of program risks, issues, and changes.
- Briefings to the OFM/FMC will be provided on a regular basis to review program status, issues, and policies.

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### Deliverable Reviews

Key deliverables will be reviewed throughout the duration of the program. Different methods of review will be used depending upon the status of the development of the deliverable.

**Peer Reviews** will be used to check quality, to spread experience, and to communicate ideas and approaches. A peer review is carried out by a co-worker on the team. The reviewer checks the output of the task, makes constructive suggestions, and treats the review as an opportunity to learn. Peer reviews would apply to the Solution Document, Application Setup Document and Tested System.

**Walk-throughs** (individual or group) will be used to review quality of the Solution Document, Application Setup Document, Tested System. A walk-through is a review whereby the reviewer(s) step through a deliverable to check for errors, inconsistencies, incompleteness, etc. A walk-through encourages critical analysis and is effective for design reviews.

**Formal Reviews** are held to obtain agreement on an issue or acceptance of a product by the end user(s). It is typically held at the conclusion of a subphase or upon completion of a milestone.

These types of reviews are extremely thorough since role-playing ensures that the deliverable is evaluated from many different angles and there is a great deal of preparation before the Formal Review itself.

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## Quality Auditing

Although it is the responsibility of CSC on an on-going basis, quality assurance reviews by DOT, Oracle, and CSC will be conducted on a quarterly basis. These reviews will include evaluation of program progress against plan timeline and budget, review of work products, and review of program risks, issues, and changes. The reviews by Oracle and CSC will also include client interviews to determine whether client expectations are being achieved.

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## Test Management

### Test Levels

The following levels of testing will be performed on this program:

- Unit testing
- Link Testing
- System Testing
- Regression Testing
- Integration Testing

### Test Execution

Testing activities will be led by a testing coordinator. Testing tasks will be assigned to functional team members, such as the DOT Functional Specialist and DOT Systems Analyst. For all levels of testing, test plans will be developed with test data and expected results defined. The individuals that were involved in the development of the design will be responsible for developing test plans and performing the tests. Those individuals involved in the build, along with Oracle, will be responsible for correcting or resolving test problems identified by the testers.

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## Administration

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### Program Administration

This section lists the areas of program administration which must be addressed during the course of the DELPHI Program. Procedures for activities in each of these areas must be established during the program start-up period to govern such administrative activities during the course of the program. There is a task called *Document Program Policies* in the program plan during program initiation where these procedures will be developed.

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#### Scheduling Planned Time Off

During the course of the program, team members will have scheduled time off from the program due to vacation, training, meetings, conferences, and other planned activities away from the program. The Program Policies document addresses procedures to request, obtain approval for, and schedule such planned time away from the program.

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#### Reporting Unplanned Time Off

During the course of the program, team members will have unscheduled time off from the program due to illness, personal/family emergencies and other reasons. The Program Policies document addresses procedures to report time off.

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#### Scheduling Resources

The program team will make use of many resources throughout the duration of the DOT program, such as personnel (DOT, Consultant, or temporary), meeting rooms, equipment, and other resources that may not be dedicated to this program on a full-time basis. A procedure will be established for scheduling such resources. In the case of resources that must be acquired, the procedure will address the guidelines to be followed to acquire such resources.

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#### New Team Member Startup

According to the program plan and resource requirements, new team members (DOT and Consultant members) will join the program team. A procedure will be defined to effect this start up of new team members; this procedure will include the handling of:

- security badges
- building access key cards
- parking permits
- system access
- e-mail access
- telephone and voicemail
- desk space

The Program Management Team will create a team member orientation packet for new program team members includes:

- Program Charter
- Control and Reporting Procedures

- Quality Plan
- Program Calendar
- Pilot and Deployment Work Plans
- Program Team Member Phone List
- Emergency Procedure Orientation
- Emergency Contact List
- Other Material as Required

## Appendix A - Exit Procedures

### DELPHI Program - Exit Checklist

<b>Client Name:</b>	<b>Project Name:</b>
<b>DELPHI Project Manager:</b>	<b>Prepared By:</b>

<b>Employee Name:</b>
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Task	Assigned To	Date	<input checked="" type="checkbox"/>
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#### Administration

Process Disclosure Agreements			<input type="checkbox"/>
Return Security Badges			<input type="checkbox"/>
Return Access Keys			<input type="checkbox"/>
Return Parking Permits			<input type="checkbox"/>

#### Security Access

Deactivate Host Access ID's			<input type="checkbox"/>
Deactivate Database Access ID's			<input type="checkbox"/>
Deactivate LAN Access ID's			<input type="checkbox"/>
Change Master Security ID's			<input type="checkbox"/>

#### Exit Reviews

End of Project Review			<input type="checkbox"/>
Exit Interview			<input type="checkbox"/>